

FISH, Aron Yakovlevich; TARNOPOL'SKIY, Yuriy Matveyevich; AKUNTS,
Karlen Armenakovich; PETROV, Aleksandr Vasil'yevich;
POPOV, K.K., red.; BUL'DYAYEV, N.A., tekhn. red.

[Collectors of electrical machines using plastic materials]
Kollektory elektricheskikh mashin na plastmasse. [By]A.IA.
Fish i dr. Moskva, Gosenergoizdat, 1963. 191 p.
(MIRA 16:4)

(Electric machinery) (Plastics)

BENDERSKIY, J. Sh., *inzh.*, *1949*, *R.K.*, *inzh.*

OS-627 stator winding machine. *Elekrotekhnika* 35 no.5:37-38
Myl'64 (NIRA 17:8)

VOYEYKOV, Dmitriy Dmitriyevich; GERTSIGER, Leopol'd Naumovich;
KHYAZEV, Konstantin Konstantinovich; LIVSHITS, Il'ya
Aronovich; ESSENSON, Al'bert Yakovlevich; POPOV, K.K., red.

[Design of low-frequency generators] Konstruirovaniye nizko-
chastotnykh generatorov. [By] D.D.Voeikov i dr. Moskva,
Izd-vo "Energia," 1964. 225 p. (MIRA 17:7)

POPOV, K.K.; KALITINA, Z.I.

Development of *Dicrocoelium lanceatum* Stiles et Hassall, 1896 on
alpine pastures of the central Caucasus. Zool. zhur. 41 no.12:
1793-1797 D '62. (MIRA 16:3)

1. Pedagogical Institute and Medical High School of North-Osetia,
Ordzhonikidze.

(Caucasus--Trematoda)

BABADZHANYAN, Pargev Artsheovich; LYUSIN, Boris Ivanovich; POPOV, K.K.,
red.; VORONIN, K.P., tekhn.red.

[Design and production of collectors for electric machinery]
Konstruktsiia i proizvodstvo kollektorov elektricheskikh mashin.
Moskva, Gos.energ.izd-vo, 1960. 189 p.

(MIRA 14:4)

(Electric current collectors) (Electric machinery)

POPOV, K. M.

PA 243T56

USSR/Geography - Explorers

Jan/Feb 53

"Russian Contributions to the Geographical Study of Eastern Nations (Japan, Southeast Asia, and India)," K. M. Popov, Geog Inst, Acad Sci USSR

"Iz Ak Nauk SSSR, Ser Geograf" No 1, pp 58-69

Discusses contributions made by Russian travelers, scientists, writers, painters, etc., to geological study of certain Eastern countries. Mentions in particular Yu. M. Shokalskiy, oceanographer; A.I. Voyeykov, climatologist; A. N. Krasnov, botanist; N. N. Miklukho-Maklay, explorer; Admiral S. OI. Makarov, hydrographer; I.A. Goncharov, writer; V.V. Vereshchagin, artist; and others.

243T56

POPOV, Konstantin. [M.]

Plundering economic resources of countries of Southeast Asia by Japanese imperialists, and suppression of their national cultures during the Second World War. Trudy Inst.geog. no.57:115-142 '53. (MLBA 7:1)
(Asia, Southeastern--Japanese occupation, 1940-1945)

KOSTINSKIY, Dmitriy Natanovich; POPOV, K.M., professor, doktor
ekonomicheskikh nauk, redaktor; LAVRENT'YEVVA, Ye.V., redaktor;
GLEBYKH, D.A., tekhnicheskii redaktor.

Nepal. Moskva, Gos. izd-vo geogr.lit-ry, 1955. 102 p. (MLRA 9:1)
(Nepal--Description and travel)

ORLOVA, Yelena Vladimirovna; BOZIN, Mark Solomonovich; POPOV, K. M.,
redaktor; LAVRENT'YEVA, Ye. V., redaktor; KOSHELEVA, S. M.,
tekhnicheskiy redaktor

[India's mineral resources] Bogatstva nedr Indii. Moskva, Gos.
Izd-vo geogr. lit-ry, 1955. 114 p. (MLRA 8:10)
(India--Mines and mineral resources)

PULYARKIN, Valeriy Alekseyevich; POPOV, K.M., doktor ekonomicheskikh nauk,
otvetstvennyy redaktor; RYABCHIKOV, A.M., kandidat geograficheskikh
nauk, otvetstvennyy redaktor; KOSTINSKIY, D.N., redaktor; FOGINA, N.I.,
tekhnicheskiy redaktor

Kashmir. Moskva, Gos. izd-vo geogr. lit-ry. 1956. 225 p. (MLRA 10:1)
(Kashmir--Geography)

POPOV, K. V.

ALAMPIYEV, P.M., APENCHENKO, V.S., BEKOVA, T.M., BYUSHGENS, L.M., GINSBURG,
G. G.E., GORDONOV, L.S., GRIGOR'YEV, A., akademik, GUARARI, Ye.L,
DANTLOV, A.D., DEMIN, L.A., DOBROV, A.S., SHIPILINSKIY, M.M.,
KULAGIN, G.D., MELTYKOVSKIY, G.G., MURZAYEV, B.M., PAVLOV, V.V.
POPOV, K.M., YANITSKIY, N.F.,

Lev Iakovlevich Ziman, 1900-1956; obituary. Izv. AN SSSR. Ser.Geog.
no.6:153-154 N-D '56.

(Ziman, Lev Iakovlevich, 1900-1956)

POPOV, K.M.

ROZIN, Mark Solomovich; POPOV, K.M., doktor ekonomicheskikh nauk, professor, otvetstvennyy redaktor; ~~EVRENT'YEVA~~, Ye.V., redaktor; KOSHELEVA, S.M., tekhnicheskii redaktor; MAL'CHEVSKIY, G.N., redaktor kart.

[Geography of mineral resources of Africa] Geografiia poleznykh iskopaemykh Afriki. Moskva, Gos.izd-vo geogr.lit-ry, 1957. 278 p.
(MIRA 10:11)

(Africa--Mines and mineral resources)

Popov, km

ALAMPIYEV, P.M.; GERASIMOV, I.P.; GORNUNG, M.B.; GOKHMAN, V.M.; ZHIRMUNSKIY,
M.M.; KOVALEVSKIY, V.P.; KULAGIN, G.D.; MILNYKOVSKIY, A.G.; KEYSHTADT,
H.I.; POPOV, K.M.; FULYARKIN, V.A.

A.S. Dobrov; obituary. P.M. Alampiev and others. Izv. AN SSSR. Ser.
geog. no. 4:143-144 J1-Ag '57. (MIRA 11:1)
(Dobrov, Aleksandr Semonovich, 1901-1957)

POPOV, K. M.

OSKOLKOVA, Ol'ga Borisovna; POPOV, K.M., prof., doktor ekon.nauk, otvetstvennyy red.; ASOYAN, H.S., red.; MOGINA, H.I., tekhn.red.

[Northern India; its economic geography] Severnaia India; ekonomiko-geograficheskaiia kharakteristika. Moskva, Gos.izd-vo geogr.lit-ry, 1958. 318 p. (MIRA 11:6)
(India--Economic geography)

ANDREYEVA, Vera Mikhaylovna; GOKHMAN, Veniamin Maksovich; KOVALEVSKIY, Vladimir Pavlovich; POLOVITSEAYA, Mariya Yefimovna; POPOV, K.M., doktor ekon.nauk, otv.red.; SOLOV'YEVA, M.G., kand.geograf.nauk, otv.red.; CHIZHOV, N.N., red.; VASILEVSKIY, L.I., red.; KISILEVA, Z.A., red.kart; NOGINA, N.I., tekhn.red.

[Economic regions of the U.S.A.; the North] Ekonomicheskie raiony SShA: Sever. Otv. red. K.M.Popov, M.G.Solov'eva. Moskva, Gos. izd-vo geogr. lit-ry, 1958. 829 p.. (MIRA 12:1)
(United States--Economic geography)

KNYAZHINSKAYA, Larisa Aleksandrovna; POPOV, K.M., prof., doktor ekonom.nauk,
otv.red.; ASOYAN, N.S., red.; KISELEVA, Z.A., red.kart; NOGINA,
N.I., tekhn.red.

[Western India; economic and geographical characteristics]
Zapadnaia India; ekonomiko-geograficheskaia kharakteristika.
Moskva, Gos.izd-vo geogr.lit-ry, 1959. 308 p. (MIRA 12:8)
(India--Economic conditions)

PULYARKIN, Valeriy Alekseyevich; POPOV, K.M., doktor ekon.
nauk, otv. red.; LAVRENT'YEVA, Ye.V., red.

[Afghanistan; its economic geography] Afganistan; ekonomicheskaya geografiya. Moskva, Mysl', 1964. 253 p.
(MIRA 18:4)

POPOV, K.M.

I.A.Vitver's new work. Izv. AN SSSR. Ser. geog. no. 51135-137 S-O
'63. (MIRA 16:10)

ASOYAN, Nadezhda Samilovna; POPOV, K.M., doktor ekon.nauk, prof.,
otv.red.; GORNUNT, F.B., kand. geogr.nauk, otv.red.;
DEREVYANKINA, L.A., red.; SHAPOVALOVA, N.S., mlad.
red.; VAS'KINA, R.S., tekhn. red.

[Nigeria; characteristics of its economic geography]
Nigeria; ekonomiko-geograficheskaia kharakteristika.
Moskva, Geografiz, 1963. 270 p. (MIRA 17:2)

DLIN, Nikolay Aleksandrovich; POFOV, K.M., doktor ekon. nauk,
prof., otv. red.; PAVLOV, A.G., red.izd-va; MIKHLINA, L.T.,
tekh. red.

[United Arab Republic (Egypt)] Ob"edinennaia Arabskaia Res-
publika (Egipet). Moskva, Izd-vo vostochnoi lit-ry, 1963.
139 p. (MIRA 16:12)
(Egypt--Economic geography)

GORELIKOV, Semen Gerasimovich; POPOV, K.M., doktor ekop. nauk,
otv. red.; NEFED'YEV, V.P., red.; SHAPOVALOVA, N.S.,
mladshiy red.; VILENSKAYA, E.N., tekhn. red.

[Iraq; economic geography] Irak; ekonomiko-geograficheskaia
karakteristika. Moskva, Geografizdat, 1963. 223 p.
(MIRA 16:11)

(Iraq--Economic geography)

ANDREYEVA, Vera Mikhaylovna; ~~POPOV, K.M.~~, doktor ekon. nauk, otv.
red.; LAVRENT'YEVA, Ya.V., red.; SHAPGVALOV, N.S., mlad.
red.; MAL'CHEVSKIY, G.N., red.kart; ARDANOVA, N.P.,
tekhn. red.

[New Zealand; economic geography] Novaia Zelandiia; eko-
nomiko-geograficheskaiia kharakteristika. Moskva, Geografiz,
1963. 334 p. (MIRA 16:8)
(New Zealand--Economic geography)

POTEKHIN, I.I., glav. red.; BARANOV, A.N., red.; BELYAYEV, Ye.A., red.;
GELLER, S.Yu., red.; GRAVE, L.I., st. nauchnyy red.; GRIGOR'YEV,
A.A., red.; GUBER, A.A., red.; KULAGIN, G.D., red.; MALIK, Ya.A.,
red. MANCHKHA, P.I., red.; MILOVANOV, I.V., red.; NERSESOV, G.A.,
red.; OL'DEROGGE, D.A., red.; ORLOVA, A.S., red.; POPOV, K.M.,
red.; ROZIN, M.S., kand. ekon. nauk, red.; SMIRNOV, S.R., red.;
UFIMOV, I.S., red.; SHVEDOV, A.A., red.; YASTREBOVA, I.P., red.;
PAVLOVA, T.I., tekhn. red.

[Africa; encyclopedia] Afrika; entsiklopedicheskiy spravochnik.
Glav. red. I.I.Potekhin. Chleny red. kollegii: A.N.Baranov i dr.
Moskva, Vol.1. A - L. 1963. 474 p. (MIRA 16:4)

1. Sovetskaya entsiklopediya, Gosudarstvennoye nauchnoye izdatel'-
stvo, Moscow.
(Africa--Dictionaries and encyclopedias)

ZHIBITSKAYA, Ernestina Davidovna; POPOV, K.M., doktor ekon. nauk,
prof., otv. red.; KOSTINSKIY, D.N., red.; KISELEVA, Z.A.,
red. kart; KOSHELEVA, S.M., tekhn. red.

[Finland; economic geography]Finliandiia; ekonomiko-
geograficheskaia kharakteristika. Moskva, Geografiz, 1962.
305 p. (MIRA 16:3)

(Finland--Economic geography)

POPOV, K.M.

"Air routes of foreign countries" by L.Sh. Gordonov. Reviewed by
K.M. Popov. Izv. AN SSSR. Ser. geog. no.5:181-183 S-0 '62.

(Airways) (Gordonov, L.Sh.)

(MIRA 15:10)

ROZIN, Mark Solomonovich; POPOV, K.M., doktor ekon. nauk, red.;
SOKOLOV, G.A., doktor geol.-miner. nauk, red.; LAVRENT'YEVA,
Ye.V., red.; SHAPOVALOVA, N.S., mladshiy red.; KISELEVA,
Z.A., red. kart.; VILENSKAYA, E.N., tekhn. red.

[Geography of the mining industry of capitalist countries]
Geografiia gornodobyvaiushchei promyshlennosti kapitalisti-
cheskogo mira. Moskva, Geografiz, 1962. 556 p.

(MIRA 15:9)

(Mineral industries) (Geography, Economic)

OSKOLKOVA, Ol'ga Borisovna; POPOV, K.N., doktor ekonom.nauk, otv.red.;
KOSTINSKIY, D.N., red.; POPOVA, V.I., mladshiy red.; KISELEVA, Z.A.,
red. kart; VILENSKAYA, E.N., **tekhn. red.**

[Central India; economic and geographical features] Tsentral'-
naia India; ekonomiko-geograficheskaya kharakteristika. Moskva,
Geografiz, 1961. 279 p. (MIRA 15:7)
(India--Economic geography)

VOLKOV, A.V.; KOLOSOVA, Yu.A.; KULAGIN, G.D.; MUKHIN, A.I.; POPOV, K.M.;
PUCHKOV, I.B.; TIKHOMIROV, V.P.; CHERNIKOV, G.P.

Petr Ivanovich Glushakov, obituary. Izv. AN SSSR. Ser. geog.
no.5:151 S-O '61. (MIRA 14:9)
(Glushakov, Petr Ivanovich, 1893-1961)

30235

S/145/60/000/002/002/020
D221/D302

26.2124
AUTHOR: Popov, K.M., Candidate of Technical Sciences
TITLE: Cooling turbines in high temperature gas turbine engines
PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy. Mashino-stroyeniye, no. 2, 1960, 19 - 30

TEXT: To calculate the amount of heat removed during cooling as well as the temperature of cooled components it is necessary to know the coefficients of heat transfer between gas and surface of turbine. This is difficult in the case of turbine assemblies, and experimental data are used, without appreciable errors, although the former was obtained by flow through flat grids. This method is approximate only for rotors, owing to greater intensity of heat transfer in the latter. Accuracy requires experimental results on rotors. Distribution of thermal flows along the blade depends upon the field of coefficients of heat transfer over the flown-past surface. In the simple arrangement of an aircooled

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Cooling turbines in high temperature ... D221/D302

rotor, only discs and clamped parts of blades are cooled. Its effectiveness can be increased by air passage through root connections of blades. Strength of blades depends in this case on gas temperature in the fore-part of the turbine. Radial distribution of gas temperature determines the field of temperatures in the blade, and thus also its reserve of strength. The author considers a flow that is decelerated in relation to the blades, and which determines their thermal state. Assuming a parabolic radial distribution some equations are deduced and curves plotted. The latter indicate that the position of maximum gas temperature affects temperature at the root of the blade and the minimum reserve of its strength. The evaluation of efficiency of a cooling system is carried out by calculating the amount of heat removed and the losses involved. Several publications, both Soviet- and non-Soviet deal with heat transfer computations. The author then considers heat removed from a turbine and uses the dimensionless ratio of heat removed and total heat of gas in combustion chamber. This value changes with the size of the turbine, provided dynamic gas parameters and relative dimensions of assemblies correspond to modern.

Card 2/4

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D/221/D302

Cooling turbines in high temperature ...

turbines. Results of calculations on relative heat transfer during cooling of turbines are plotted for a wide range of units. They indicate that the former has a marked value for average loads and high gas temperatures. Increased loading reduces heat transfer. Consideration is given to changes in heat transfer when higher peripheral speeds are obtained by increasing the rotor size, and not with greater speeds of rotation. The effective coefficient of efficiency of cooled turbine is lower than in the case of uncooled unit, and corresponding equations are deduced. At a gas temperature of 1800°K, the quantity of heat removed for cooling may reach 15 % of the total. Without regeneration this can reduce the coefficient of efficiency of the machine by 10 %. Full regeneration may restore it to a value comparable to the coefficient of uncooled machines. In turbines with an open circuit of air cooling, the transformation of gas energy into work has some peculiarities. Loss of power due to cooling is then proportional to the relative air flow of cooling. It is possible to consider that in the case of air cooled turbines, 1 % of air flow on cooling produces an average drop of engine power by 1.5 % together with increase of fuel consump-

Card 3/4

POPOV, K. K.

On the 70th birthday of Ivan Aleksandrovich Vitver. Izv. AN SSSR.
Ser. geog. no. 3:151-152 My-Je '61. (MIRA 14:5)
(Vitver, Ivan Aleksandrovich--1891-)

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PROCESSES AND PROPERTIES INDEX

Determination of fluorine in sodium fluoride, fluorspar, electrolytes and in slag from magnesium manufacturing. K. M. Popov, *Khimiya* (U.S.S.R.) 1935, No. 10, 24-7. By treating the sample with SiO_2 and H_2SO_4 , all F is evolved as $HSiF_6$, which is detd. by alkalimetric titration. The necessary precautions and modifications for various materials are described. A. Pestoff

ASB-SLA METALLURGICAL LITERATURE CLASSIFICATION

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Determination of Small Amounts of Sodium and Potassium in Metallic Magnesium. K. M. Popov (*Nalib*, 1926, (3), 30-43; *C. Abs.*, 1930, 80, 7063).— [in Russian.] *Tr. J. Inst. Metals*, 1924, 21, 481; 1930, 64, 685; *Met. Abs.*, 1935, 2, 65. The Na is determined as "triple acetate" and the K as cobaltinitrite.—S. G.

ASB-SLA METALLURGICAL LITERATURE CLASSIFICATION

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Determination of nitrogen in metallic magnesium. K. M. Popov and R. A. Alferova. *Kalil* (U. S. S. R.) 1956. No. 6, 43 5.--The N present in Mg as Mg_3N_2 was detd. by means of dissolving Mg in HCl or H_2SO_4 , adding an excess of NaOH, distg. off NH_3 and absorbing it with 0.1 N HCl and, either back titrating with 0.1 N NaOH or comparing with Nessler standards. A. Pestoff

ASB-55A METALLURGICAL LITERATURE CLASSIFICATION

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Determination of chloride in metallic magnesium. K. M. Popov and A. I. Golovina. *Kali* (U. S. S. R.) 1936, No. 6, 45-7. — A nephelometric method is used when the Cl is present in an amt. less than 0.01%. Use a 5-g. sample, dissolve in 125 cc. of 10% H₂SO₄, filter and det. Cl nephelometrically in the filtrate by adding AgNO₃ soln. (5 g. per l.). If the amt. of Cl is higher than 0.01%, weigh a 5-g. sample, dissolve in 125 cc. dil. HNO₃, filter, add to the soln. a few drops of 0.1 N AgNO₃, filter off AgCl, wash, dissolve in NH₄OH, wash, add KCN soln. (5 g. per l.) and electrolyze (6 v. for 2 hrs.). — Three references. A. Pestoff

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Colorimetric Determination of Silicon in Metallic Magnesium. K. M. Popov and M. L. Vegrin (*Zavod. Lab. (Works' Lab.)*, 1937, 6, (4), 502-503).—[In Russian.] The method suggested consists in the comparison of the colour of the complex formed by silicic acid and $(NH_4)_2MoO_4$ in the presence of H_2SO_4 , with a standard solution of picric acid. The picric acid solution is standardized by means of a solution of the complex of known concentration. —D. N. H.

ASB-SLA METALLURGICAL LITERATURE CLASSIFICATION

1ST ORDERS 2ND ORDERS 3RD ORDERS 4TH ORDERS

PROCESSES AND PROPERTIES INDEX

7

Ca

Rapid analysis of fluxes used in the production of magnesium. K. M. Popov and E. A. Alferova. *Kalil* (U. S. S. R.) 1937, No. 9, 18-20. - A rapid method for analyzing fluxes (contg. F, Cl and C₂) is described. Ca can be detd. directly, but F must be removed before Al, Fe and Mg are detd.; a specially designed heater is used to accelerate the evapn. Tananaev's method (C. A. 28, 4315⁴), somewhat modified, is used to det. F; the method is accurate and the time taken for analysis is 3-3.5 hrs. B. C. P. A.

METALLURGICAL LITERATURE CLASSIFICATION

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ABSTRACT AND PREPARATION NOTES

Determination of silicon in aluminum. K. M. Popov and M. L. Vegrin. *Zaretskaya Lab.* 7, 1432-37 (1938). The Callendar method A (C. A. 26, 5929), based on the soln. of Al in freshly prepd. 10% NaOH, gave the best results. Chas. Blanc

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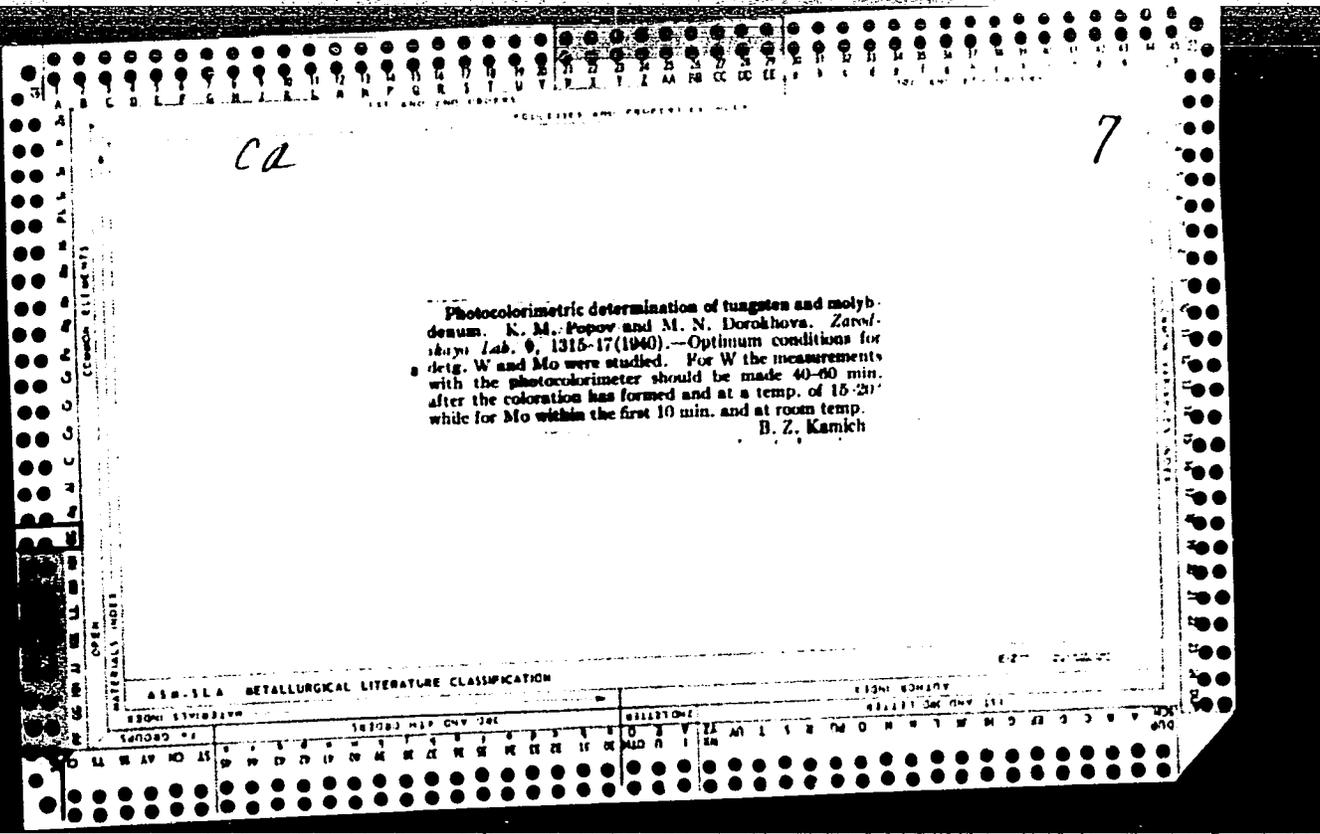
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UNIVERSITY MICROFILMS

PERIODICALS DEPARTMENT

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ANN ARBOR, MICH. 48106



1. Podshynik, A. A. Podshynik, A. A.

Bearings (the iron)

Testing bearings in the "MID" machine. Podshynik, No. 5, 1952.

Monthly List of Russian Accessions, Library of Congress, October 1952. UNCLASSIFIED.

ANTIPOVA, Angelina Vasil'yevna; POPOV, K.M., doktor ekon. nauk,
prof., otv. red.; ROMASHOVA, V.D., red.; MARTYNOVA, V.A.,
mlad. red.

[Canada; nature and natural resources] Kanada; priroda i
estestvennye resursy. Moskva, Mysl', 1965. 318 p.
(MIRA 18:7)

GOKHMAN, V.M.; KOMAR, I.V.; MINTS, A.A.; MURZAYEV, E.M.; POMER, M.T.; POROV,
K.M.; NAZAREVSKIY, G.R.

Vadim Vlachaslavovich Pokshishevskii, 1905- ; his death birthday.
Izv. AN SSSR. Ser. geog. no.5:135-136 S-0 '65.

(MIRA 18:10)

MUKHIN, Georgiy Ivanovich; POPOV, K.M., doktor ekon. nauk, prof.,
retsenzent; LEBEDEV, I.A., kand. ist. nauk, retsenzent;
FISHCHEVA, T.V., red.

[Australia; physical geography and economic geography
surveys. A textbook for the teacher] Avstraliia; fiziko-
geograficheskii i ekonomiko-geograficheskii obzory. Posobie
dlia uchitelia. Moskva, Izd-vo "Prosveshchenie," 1964.
291 p. (MIRA 17:7)

SIMONIYA, Nodari Aleksandrovich; POPOV, K.M., otv. red.; GARMSEN,
O.M., red.izd-va; MIKHLINA, L.T., tekhn. red.

["The island of a great river."] Ostrov bol'shoi reki. Moskva,
Izd-vo vostochnoi lit-ry, 1962. 156 p. (MIRA 15:12)
(Borneo)

PULYARKIN, Valeriy Alekseyevich; POPOV, K.M., doktor ekon. nauk,
otv. red.; SHAPOSHNIKOV, A.D., red.; MARTYNOVA, V.A.,
mladshiy red.; KISELEVA, Z.A., red. kart; KOSHELEVA,
S.M., tekhn. red.; VILENSKAYA, E.N., tekhn. red.

[Western Pakistan; economic geography] Zapadnyi Pakistan;
ekonomiko-geograficheskaya kharakteristika. Moskva,
Geografiz, 1962. 259 p. (MIRA 15:10)
(Pakistan--Economic geography)

KOMAR, I.V.; POPOV, K.M.

Problems in the economic regionalization of India. Izv.
AN SSSR. Ser. geog no.1:37-47 Ja-F '62. (MIRA 15:2)

1. Institut geografii AN SSSR.
(India---Economic zoning)

GORELIKOV, Semen Gerasimovich; POPOV, K.M., doktor ekonom. nauk, otv. red.; KOSINSKIY, D.N., red.; SHAPOVALOVA, N.S., mladshiy red.; MAL'CHEVSKIY, G.N., red. kart; VILENSKAYA, E.N., tekhn. red.

[Iran; economic and geographical features] Iran; ekonomiko-geograficheskaya kharakteristika. Moskva, Gos.izd-vo geogr. lit-ry, 1961. 351 p. (MIRA 15:2)
(Iran--Economic geography)

POPOV, K.M., kand.tekhn.nauk

Cooling of turbines in high-temperature gas-turbine engines. Izv.
vys.ucheb.zav.; mashinostr. no.2:19-30 '60. (MIRA 14:4)

1. Moskovskoye vyssheye tekhnicheskoye uchilishche imeni Baumana.
(Gas turbines--Cooling)

TRINICH, Fridrikh Akhmetovich; POPOV, K.M., prof., doktor ekonom.nauk,
otv.red.; ASOYAN, N.S., red.; KISILEVA, Z.A., red.kart;
NOGINA, N.I., tekhn.red.

[Eastern Pakistan; economic-geographical features] Vostochnyi
Pakistan; ekonomiko-geograficheskii ocherk. Moskva, Gos.izd-vo
geogr.lit-ry, 1959. 223 p. (MIRA 13:2)
(Pakistan, Eastern--Economic conditions)

ANDREYEVA, Vera Mikhaylovna; POPOV, K.M., doktor ekonomicheskikh nauk,
otvetstvennyy redaktor; ASOYAN, N.S., redaktor; KOSHELEVA, S.M.,
tekhnicheskii redaktor

[Australia: a geographical sketch] Avstraliia; geograficheskii ocherk.
Moskva, Gos. izd-vo geogr. lit-ry, 1956. 101 p. (MLRA 9:7)
(Australia—Geography)

BUTAYEV, Davlet Aslanbekovich; KALMYKOVA, Zinaida Alekseyevna, PODVIDZ, Lev Grigor'yevich; POPOV, Kirill Nikolayevich; ROZHDESTVENSKIY, Sergey Nikolayevich; YAN'SHIN, Boris Ivanovich; KUKOLEVSKIY, I.I., professor, redaktor; NEKRASOV, B.B., redaktor; FRIDKIN, A.M., tekhnicheskiy redaktor

[Book of problems in hydraulics for mechanical engineering schools]
Zadachnik po gidravlike dlia mashinostroitel'nykh vuzov. Pod rad.
I.I.Kukolevskogo. Moskva, Gos. energ. izd-vo, 1956. 343 p. (MLRA 10:1)
(Hydraulics--Problems, exercises, etc.)

POPOV, K.N., inzh.; TITOV, V.N., dotsent, kand. tekhn. nauk [deceased]

Photoele

POPOV, K.N., inzh.; GORSHKOV, V.S., kand. tekhn. nauk

Chemical stability of crystallized glass materials. Stekloker.
22 no.10:22-26 0 '65. (MIRA 18:12)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut novykh
stroitel'nykh materialov.

POPOV, K.N., inzh.; TITOV, V.N., dotsent, kand. tekhn. nauk [deceased]

Photoelectronic instrument for quick determination of carbon content
in ashes. Izv. vys. ucheb. zav.; energ. 8 no.6:74-76 Je '65.(MIRA 18:7)

1. Tomskiy ordena Trudovogo Krasnogo Znameni politekhnicheskoy ordena
Trudovogo Krasnogo Znameni politekhnicheskoy institut imeni Kirova.

POPOV, K.N., kand.tekhn.nauk; LYAKHOVSKIY, L.K., kand.tekhn.nauk

Testing direct-acting steam pumps manufactured by the Svessa Plant.
[Trudy] MVTU no.100:99-117 '60. (MIRA 14:4)
(Svessa--Pumping machinery) (Steam engines)

BUTAYEV, Devlet Aslanbekovich; KALMIKOVA, Zinsida Alekseyevna; PODVIDZ, Lev Grigor'yevich, dotsent; POPOV, Kirill Nikolayevich; ROZHDESTVENSKIY, Sergey Nikolayevich; YAN'SHIN, Boris Ivanovich; KUKOLEVSKIY, I.I., prof., red. [deceased]; VORONIN, K.P., tekhn. red.

[Problems in hydraulics for mechanical-engineering institutes]
Zadachnik po gidravlike dlia mashinostroitel'nykh vuzov. Pod red. I.I.Kukolevskogo i L.G.Podvidza. Izd.2., perer. i dop. Moskva, Gos.energ.izd-vo, 1960. 440 p. (MIRA 13:11)
(Hydraulics--Problems, exercises, etc.)

POPOV, K.N.

Melioidosis (pseudoglanders). Zhur.mikrobiol.spid. i immun. 28 no.1:
125-128 Ja '57. (MLBA 10:3)
(MELIROIDOSIS,
(Rus))

ACC NR: AR6027131

SOURCE CODE: UR/0272/66/000/004/0079/0079

AUTHOR: Popov, K. N.

TITLE: A photoelectric device for measuring the specific surface of powdered materials

SOURCE: Ref. zh. Metrologiya i izmeritel'naya tekhnika, Abs. 4.32.590

REF SOURCE: Izb. Tomskogo politekhn. in-ta, v. 138, 1965, 174-177

TOPIC TAGS: electric measuring instrument, photoelectric method, physical quantity measurement

ABSTRACT: An automatic photoelectric device for measuring the specific surface within 160--3500 cm²/g of powdered materials in the absence of inner porosity is described. The principle of operation of the device, which was developed by the Department of Technical Physics, Tomsk Polytechnic Institute (fiziko-tekhicheskiy fakul'tet Tomskogo politekhnicheskogo instituta) is based on measuring the time required for a certain volume of air to pass through a layer of a powdered material. The measured time is determined by

$$t = \frac{T \cdot \alpha}{360} = 0.0205\alpha$$

Card 1/2

UDC: 531.755.1.082.52

ACC NR: AR6027131

where $T = 7.4$ sec is the time during which the scale of the device makes a 360° turn
 α is the rotation angle of the scale in degrees, i.e., the angle of scale rotation
by a motor which establishes the balance of a measuring bridge disturbed by the pas-
sage of air expelled by a liquid column in front of a photoresistance. The results
of measurements on samples with different specific surfaces are presented. Devia-
tions from measurements by a surface meter of the T-3 type did not exceed 4--5%. A
single sample was measured in 25--30 sec, which is 10--15 times faster as compared to
the T-3. [Translation of abstract] 2 illustrations and bibliography of 4 titles.
M. Mekler

SUB CODE: 13, 11, 14, 09

Card 2/2

EXCERPTA MEDICA Sec 5 Vol 12/7 General Path. July 59

1817. A CASE OF CONGENITAL STENOSIS OF THE TRACHEA - Über einen Fall von kongenitaler Trachealstenose - Popov K. P. Inst. für Pathol. Anat., Höheres Med. Inst., Sofia - ZBL. ALLG. PATH. PATH. ANAT. 1958, 98/5-6 (241-243) Illus. 1

The post-mortem findings in a girl who died at the age of 1 yr. 9 months are reported. The stenosis is explained as being due to a disturbance of the development of one of the tracheal rings. Clinical manifestations were present soon after birth. The malformation was complicated by German measles and bronchopneumonia. Discussion of the genesis.

Hambach - Jihlava (V, 7*)

POPOV, K.P.

Present occurrence of the birch *Betula verrucosa* Ehrh. in
the mountains of the Crimea. Bot.zhur. 50 no.2:223-228 F
'65. (MIRA 18:12)

1. Varzobskaya botanicheskaya stantsiya p./o. Varzob,
Tadzhikskaya SSR. Submitted January 6, 1962.

POPCV, K.P.

Prevention of the damage of herbaria by insects. Bot. zhurn. 50 no.3:
368-370 Mr '65. (MIRA 18:5)

1. Nikitskiy botanicheskiy sad, Yalta.

POPOV, K.P.

Drying and mechanization of the packaging and packing operations
of ammonium sulfate. Koks i khim. no.5:43-45 '63. (MIRA 16:5)
(Ammonium sulfate) (Coke industry--By-products)

MOVCHAN, A.T.; POPOV, K.P.; SOKOLOV, V.F.; LIVSHITS, B.Ya.; BUTUZOV, M.D.

Automation of sulfate recovery plants. Koks i khim. no.5:39-43
'63. (MIRA 16:5)

(Coke industry--By-products) (Automation)

POPOV, K.P.

Sesquicentennial celebration of the Nikita Botanical Garden.
Ukr. bot. zhur. 20 no.2:121-122 '63. (MIRA 16:6)

(Nikita(Crimea)--Botanical Gardens)

POPOV, K.P.

Protection of herbaria against pests. Ukr. bot. zhur. 21 no.5:
102-104 '64. (MIRA 18:2)

1. Varzobskaya gorodskaya botanicheskaya stantsiya, Tadzhijskaya
SSR.

SHALIT, M.S.; POPOV, K.P.

Professor Nikolai Aleksandrovich Troitskii; obituary. Ukr. het.
zhur. 15 no.4:101-102 '58. (MIRA 12:5)
(Troitskii, Nikolai Aleksandrovich, 1887-1957)

POPOV, K.P.

A new species of the genus Sorbus from the Crimea. Bot.mat.
Gerh. 19:188-196 '59. (MIRA 12:8)
(Crimea--Sorbus)

POPOV, K.P.

Tertiary conifer relicts of Crimea and their present habitat. Bot.
zhur. 46 no. 5:965-700 My '61. (MIRA 14:7)

1. Krymskiy gosudarstvennyy pedagogicheskiy institut imeni M.V. Frunze
Simferopol'.

(Crimea—Paleobotany—Tertiary) (Crimea—Coniferae)

MASLINKOV, L.St.; POPOV, K.P.

Congenital stenosis of the trachea. Suvrem med., Sofia no.6:89-92 '60.

1. Iz Katedrata po patologoanatomia pri VMI, Sofia (Rukov. na
katedrata: prof. B.Kurdzhiev)
(TRACHEA abnorm.)

POPOV, K.P.

Unusual flowering of an apricot tree following frost damage.
Priroda 48 no.6:104-105 Je '59. (MIRA 12:5)

1.Krymskiy pedagogicheskiy institut, Simferopol'.
(Apricot)

IS Kopyev, N. V.

Distr. 4E4j 7
Increasing the output of the pyridine bases. R. P. Ponomarev
and M. A. Karvatkaya. Koks i Khim. 1953, No. 2, p. 5.
As a result of exptl. studies carried out in the lab. and in the
plant the yield of pyridine was raised from 3-4 to 6-8 kg./-

4-2 may

ton of $(NH_4)_2SO_4$ produced. Along with providing
more complete absorption of the pyridine in the saturator,
the adoption of the following regime was credited with the
improvement: maintenance of the temp. of the saturator at
55°-60°, the acidity of the mother liquor at 6-7%, and the
concn. of the pyridine bases in the saturator at 8-11 g./l.
Continuous and uniform removal of the mother liquor to the
neutralizer provided constancy of saturator conditions.
Acidity higher than 8% is undesirable, since the quality of
the $(NH_4)_2SO_4$ is lowered without a compensating rise in
pyridine recovery. H.-I. Olin

1/1

pp Jh

AUTHORS: Popov, K.P. and Karvatskaya, M.A.

68-58-2-9/21

TITLE: On Increasing the Recovery of Pyridine Bases (Ob
uvelichenii vyrabotki piridinovykh osnovaniy)

PERIODICAL: Koks i Khimiya, 1958, Nr 2, pp 41 - 43 (USSR)

ABSTRACT: An investigation of the operation of the pyridine recovery plant on the Zaporozh'ye Coke Oven Works was carried out. Various operational practices were tried. As a result optimum operating conditions were established: temperature of the bath, 55 - 60 °C, acidity of mother liquor 5 - 7%, concentration of pyridine bases 8 - 11 g/litre. Under these conditions, an average output of pyridine bases of 7 kg per ton of sulphate was obtained. Continuous treatment of the mother liquor from the same saturator is permissible as no decrease in the concentration of bases in the mother liquor takes place. A high acidity of mother liquor (8%) is harmful as the absorption of pyridine bases is not improved while the quality of ammonium sulphate deteriorates. There are 5 tables.

ASSOCIATION: Zaporozhskiy koksokhimicheskiy zavod (Zaporozh'ye
Coke Oven Works)

AVAILABLE: Library of Congress
Card1/1 1. Pyridines-Recovery 2. Pyridine recovery plant-
Operation

POPOV, K.P.

Dichroism absorption bands of some aromatic molecules. Opt. 1
spektr. 3 no.6:579-586 D '57. (MIRA 11:2)
(Aromatic compounds--Spectra)

POPOV, K.P.; KARVATSKAYA, M.A.

Increasing the yield of pyridine bases. Koks. i khim. no.2:41-43 '58.
(MIRA 11:3)

1. Zaporozhskiy koksokhimicheskiy zavod.
(Pyridine)

POPOV, K. P.; GIUROVSKI, Al.

~~Congenital abnormality of the heart combined with persisting embryonic upper left caval vein. Suvrem. med., Sofia 7 no.9: 91-94 1956.~~

1. Iz Katedrata po obshcha patologiya i patologichna anatomia pri VMI - Sofia (Zav. katedrata: prof. B. Kurdshiev) i Katedrata po anatomia V. Vorob'ov pri VMI - Sofia (Zav. katedrata: prof. D. Kadanov).

(CARDIOVASCULAR DEFECTS, CONGENITAL, case reports morbus caerulea & tetralogy of Fallot)

POPOV, K. P.

POPOV, K.P.; BERCHEV, Kr.

Comparative investigations on characteristics and localization of tumors according to autopsy material collected during 20 years. Suvrem.med., Sofia 6 no.7:3-14 1955.

1. Iz Instituta po obshcha patologii i patologichna anatomia pri Visshia meditsinski institut V.Chervenkov, Sofia (zav.: prof. B.Kurdzhiev).

(NEOPLASMS,
autopsy findings, 20 year survey)

100 AND 414 COPIES

117 AND 118 SERIES

PROCESSES AND PROPERTIES INDEX

BC

B-I-10

Combining with sodium ion solution. N. L. Brice
and E. P. Bost (Oxid. Tech. Koch. Proc. 1932,
No. 3, 35-37). The fields should contain Na₂CO₃ and
the salt for the desired leather 5% of Na₂CO₃.
Ch. Am.

OPEN

COMBINE ELEMENT

MATERIALS INDEX

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PROCESSES AND PROCEDURES

21

Checking and adjusting methods for combating salt spots under conditions existing in store houses. N. I. Bulgakov and K. P. Popov. *Chladenie Tekhnika*. *Kozhobnoye Proizvodstvo* 1932, No. 2, 38 ff. The following procedure is recommended. Soak pickled top leather, sep. infected hides and remove salt. The pickle should contain Na_2CO_3 , and the liquid factor should be 1:4. Carry out the pickling for 2 hrs., drain for 2 hrs., salt with pure NaCl with the addn. of 5% Na_2CO_3 (of the NaCl taken), emen. 15% of the wt. of the leather. Not more than 4 batches of leather should be treated in one pickle. A. A. Buchting

METALLURGICAL LITERATURE CLASSIFICATION

11201 634170

1121111 641 000 11

DUE

POPOV, K.P.; SOKOLOV, V.F.

Production of first-grade ammonium sulfate. Koks i khim. no.8:35-39
'61. (MIRA 15:1)

1. Zaporozhskiy koksokhimicheskiy zavod.
(Ammonium sulfate)

POPOV, K.P., SKURKO, A.M.

Interesting apple hybrid. Agrobiologia no.1:148 Ja-F '60.
(MIRA 13:5)

1. Kafedra botaniki Krymskogo pedagogicheskogo instituta g.
Simferopol'.
(Apple)

POFOV, K.P.

Systematics of Crimean representatives of the genus Sorbus.
Ukr.bot.zhur. 16 no.2:70-75 '59. (MIRA 12:11)

1. Krymskiy pedagogicheskiy institut, kafedra botaniki.
(Crimea--Sorbus)

ПОПОВ, К.Р.

PLANNED BOOK EXTRACTS 807/5151

Leningrad, Universitet

Molekulyarnaya spektroskopiya (Molecular Spectroscopy) [Leningrad] Izdat-vo Leningr. univ., 1960. 191 p. 4,700 copies printed.

Resp. Eds.: P. I. Seripov; Mts.: Ye. V. Shchemel'eva and V. D. Pliarovo; Tech. Ed.: S. D. Vodolagina.

FORWORD: This collection of articles is intended for scientific workers, instructors and students of physics and chemistry. It may also be used by engineers and technicians employing molecular spectroscopy.

CONTENTS: The collection of articles describes spectroscopic studies of liquids and solutions, and includes data on applied molecular spectroscopy. Individual articles deal with the molecular interaction in solutions, and specifically with the hydrogen bond problem. Notes on the optimum utilization of spectral apparatus and on the analytical application of molecular spectroscopy are also included. Aspects of the structure of high and low molecular compounds and of molecular complexes are also covered. The collection was published in honor of the 70th birthday of Professor Vladimir Mikheylovich Chibrikov, Soviet specialist in molecular spectroscopy and spectral analysis. There are no references.

Molecular Spectroscopy	807/5151
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POPOV, K.R.

Polarization of electron transfers in polyacenes. Opt. i spektr. 4
no.5:575-579 My '58. (MIRA 11:6)

Leningradskiy tekhnologicheskii institut pishchevoy promyshlennosti.
(Acenes--Spectra)

POPOV, K.R.; SMIRNOV, L.V.

Polarization of electron transitions in the anthraquinone molecule.
Opt. i spektr. 13 no.2:280-282 Ag '62. (MIRA 15:11)
(Anthraquinone—Spectra) (Quantum theory)

5.4 4-9-21/30

AUTHOR: Popov, K. R.

TITLE: Polarization of the Absorption Bands in the Electron Spectrum of Anthraquinone. (Polarizatsiya polos pogloshcheniya v elektronnom spektre antrakinona.)

PERIODICAL: Optika i Spektroskopiya, 1958, Vol.IV, No.5, pp.404-406 (USSR)

ABSTRACT: The present paper is an attempt to study polarization of the absorption bands of anthraquinone by investigation of the absorption spectrum of partly oriented molecules in polarized light. The method of investigation was described earlier (Ref.6). The author studied the absorption spectra of anthraquinone present in stretched films of butyral and of sodium salt of β -anthraquinone-sulphoacid ("silvery" salt) present in stretched films of polyvinyl alcohol. The spectra for the two polarized components and the spectral form of dichroism (d curves) are given in Figs.2-5. Positions of the absorption maxima are given in the table on p.405. Analysis of the results obtained led to the following conclusions. (1) The maximum at 272 m μ corresponds to an electron transition.

Card 1/2

51-4-3-21/30

Polarization of the Absorption Bands in the Electron Spectrum of Anthraquinone.

(2) The absorption bands at 325.5 and 252.5 m μ are identically polarized. Consequently the hypothesis that these two bands correspond to mutually perpendicular electron transitions of the M and Y types (Ref.3) is incorrect. (3) The electron transition at 272 m μ is polarized very differently from the transitions at 325.5 and 252.5 m μ . The moment of the 272 m μ is perpendicular to the moments of the 325.5 and 252.5 m μ electron transitions. Assuming that anthraquinone and "silvery" salt molecules are oriented with their long X-axis along the axis of stretching of the film in which they are distributed, the author concludes that the absorption bands at 325.5 and 252.5 m μ are polarized along the long X-axis of the corresponding molecule, and the 272 m μ band is polarized along the short Y-axis. There are 3 figures, 1 table and 6 references, of which

Card 2/2 5 are American and 1 Soviet.

ASSOCIATION: Leningrad Technological Institute for Food Industry (Leningradskiy Tekhnologicheskii institut pishchevoy promyshlennosti.)

SUBMITTED: 27 June, 1957.

1. Molecules--Absorption spectra
2. Butyral films--Applications
3. Anthraquinone--Electron spectra
4. Absorption bands--Polarization

POPOV, K.R.; SMIRNOV, L.V.

Spectroscopic study of polyvinylene. Opt. i spektr. 14 no.6:
787-792 Je '63. (MIRA 16:8)

(Polymers--Absorption spectra)

POPOV, K. R. Cand Phys-Math Sci -- (diss) "Polarization of absorption bands
in ~~the~~ electronic spectra of certain aromatic molecules." Len, 1959. 12 pp (Len
*
Order of Lenin State Univ im A. A. Zhdanov), 150 copies (KL, 47-59, 113)

AUTHOR: Popov, K.R.

51-4-5-5/29

TITLE: Polarization of Electron Transitions in Polyacenes
(Polarizatsiya elektronnykh perekhodov v poliatsenakh)

PERIODICAL: Optika i Spektroskopiya, 1958, Vol IV, Nr 5, pp 575-579 (USSR)

ABSTRACT: The absorption spectra of naphthalene molecules partly oriented in a stretched film of polyvinylbutyral, as well as the spectra of β -sulphonaphthalene and β -sulphoanthracene oriented in films of polyvinyl alcohol were studied. The π -electron system of the naphthalene and anthracene molecules is not greatly affected by attachment of a sulpho group, but the presence of the latter makes it possible to prepare aqueous solutions and use polyvinyl alcohol films in which a greater degree of orientation of the molecules studied is possible. The method of orientation of the molecules in polymer films and measurement of the spectra of the former are given in Refs 6, 8. Fig 1 gives the absorption spectra of β -sulphonaphthalene in the P-band region in a stretched polyvinyl alcohol film. The three curves give the two polarized components and the dichroism d . Similar results for β -sulphoanthracene in polyvinyl alcohol and for naphthalene in polyvinylbutyral are

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given in Figs 2 and 3 respectively. Table 1 summarizes the results obtained for the dichroism (d) and anisotropy (p) of the absorption bands, naphthalene and anthracene, both in polyvinylbutyral, and β -sulphonaphthalene and β -sulphoanthracene both in polyvinyl alcohol. It was found that the P-bands in polyacenes correspond to the electron transition $A_g \rightarrow B_{2u}$, and the β -bands correspond to the transition $A_g \rightarrow B_{3u}$. The author suggests that in the P-bands, in addition to the allowed electron-vibrational transitions, forbidden electron-vibrational transitions are possible. Existence of the forbidden components in the P-bands of polyacenes would explain qualitatively the observed spectral dependence of dichroism (Table 2). The author's hypothesis is supported by an estimate of the oscillator strength for the forbidden component in the P-band of anthracene ($f = 0.005-0.05$) which agrees with the values of anisotropy for the same P-band. This work was carried out under the direction of Professor L.V. Smirnov.

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There are 3 figures, 2 tables and 19 references, 8 of which are American, 5 Soviet, 4 German, 1 Hungarian and 1 Swiss.

ASSOCIATION: Leningradskiy tekhnologicheskii institut pishchevoy promyshlennosti
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1. Polyacenes 2. Electron transitions - Polarization

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POPOV, K. R.

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AUTHOR: Popov, K. R.

TITLE: Dichroism of Absorption Bands of Certain Aromatic Molecules. (Dikhroizm polos pogloshcheniya nekotorykh aromaticheskikh molekul.)

PERIODICAL: Optika i Spektroskopiya, 1957, Vol. III, Nr. 6, pp. 579-586. (USSR)

ABSTRACT: Absorption of light by organic molecules in the visible and ultraviolet regions is due to transitions of π -electrons from the ground to the excited level. Such transitions are described by their frequency, intensity and polarization. The present paper deals with polarization of electron transitions in aromatic molecules of naphthalene, anthracene, phenanthrene, acridine, acridine orange, acridine yellow and rivanol, which are oriented in a stretched film of a polymer. The method of orientation used by the present author was described in Refs. 12, 14. A film of a transparent linear polymer, which contained molecules studied as an impurity, was stretched. This caused partial orientation of the molecules introduced into

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the film with respect to the axes of stretching. Using a photoelectric spectrophotometer C Φ -4 with a polarizing device, the absorption spectra of the film were obtained. The incident light wave had its electric vector either in the direction of stretching (parallel component of optical density D_{\parallel}) or perpendicular to the direction of stretching (perpendicular component of optical density D_{\perp}). Dichroism of partially oriented molecules was calculated from the formula

$$d = (D_{\parallel} - D_{\perp}) / (D_{\parallel} + D_{\perp}).$$

The chief disadvantage of this method is the incomplete orientation of the molecules studied. The best orientation is obtained in films of polyvinyl alcohol. Since some of the substances studied were not soluble in water, butyryl was used, in which orientation was poorer. Table 1 gives the position

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and nomenclature of absorption bands and the corresponding electron transitions for some of the molecules studied. The same table gives also (col.5) theoretical directions of dipole moments of the electron transitions calculated by molecular orbit (Ref.21) and free electron (Refs. 18, 22, 23) methods. An experimental value of dichroism d is a function of two unknown quantities: the degree of the anisotropy of absorption p and the degree of orientation of the molecular layer θ . Fig.1 shows calculated dependence of dichroism d on a mean "effective" angle of orientation θ at several values of p . From Fig.1 it is possible to find, for any value of d , the limits between which p lies. The values of D_{\parallel} , D_{\perp} , d , p , and θ in the range 200-500 $m\mu$ are given for: anthracene in butyryl (Fig.2 and Table 2), naphthalene in butyryl, acridine (cation) in polyvinyl alcohol (Fig.3 and Table 3), acridine (neutral molecule) in butyryl (Table 4), acridine orange (cation) in

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polyvinyl alcohol and phenanthrene in butyryl (Fig.6).
This work was directed by Professor L.V. Smirnov.
There are 6 figures, 4 tables and 25 references, of
which 7 are Russian, 10 English, 5 German, 2 Swiss
and 1 French.

ASSOCIATION: Physics Department of Leningrad Technological
Institute of Food Industry. (Kafedra fiziki
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SUBMITTED: February 4, 1957.

AVAILABLE: Library of Congress.

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POPOV, K.S.

Biocatalysts of metabolism present in grapes and grape wines. Biokhim.
vin. no.6:261-285 '60. (MIRA 13:10)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut vinodeliya i
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POPOV, K.S.; CHISTYAKOVA, N.P.

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(CHAMPAGNE (WINE)) (WINE--PHYSIOLOGICAL EFFECT)